## SEQUENCE LISTING

```
<110> Bledsoe, Randy, K
     Lambert, Millard, H
     Montana, Valerie, G
     Stewart, Eugene, L
     Xu, H., Eric
<120> STRUCTURE OF A GLUCOCORTICOID RECEPTOR LIGAND BINDING DOMAIN
COMPRISING AND EXPANDED BINDING POCKET AND METHODS EMPLOYING SAME
<130> PU4803
<160> 11
<170> PatentIn version 3.1
<210> 1
<211> 2334
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> (1)..(2334)
<223>
                                                                      48
atg gac tcc aaa gaa tca tta act cct ggt aga gaa gaa aac ccc agc
Met Asp Ser Lys Glu Ser Leu Thr Pro Gly Arg Glu Glu Asn Pro Ser
agt gtg ctt gct cag gag agg gga gat gtg atg gac ttc tat aaa acc
                                                                      96
Ser Val Leu Ala Gln Glu Arg Gly Asp Val Met Asp Phe Tyr Lys Thr
```

25

5	cta Leu	aga Arg	gga Gly 35	gga Gly	gct Ala	act Thr	gtg Val	aag Lys 40	gtt Val	tct Ser	gcg Ala	tct Ser	tca Ser 45	ccc Pro	tca Ser	ctg Leu	14	44
10	gct Ala	gtc Val 50	gct Ala	tct Ser	caa Gln	tca Ser	gac Asp 55	tcc Ser	aag Lys	cag Gln	cga Arg	aga Arg 60	ctt Leu	ttg Leu	gtt Val	gat Asp	19	92
15	ttt Phe 65	cca Pro	aaa Lys	ggc	tca Ser	gta Val 70	agc Ser	aat Asn	gcg Ala	cag Gln	cag Gln 75	cca Pro	gat Asp	ctg Leu	tcc Ser	aaa Lys 80	24	40
	gca Ala	gtt Val	tca Ser	ctc Leu	tca Ser 85	atg Met	gga Gly	ctg Leu	tat Tyr	atg Met 90	gga Gly	gag Glu	aca Thr	gaa Glu	aca Thr 95	aaa Lys	28	88
20	gtg Val	atg Met	gga Gly	aat Asn 100	gac Asp	ctg Leu	gga Gly	ttc Phe	cca Pro 105	cag Gln	cag Gln	ggc Gly	caa Gln	atc Ile 110	agc Ser	ctt Leu	33	36
25	tcc Ser	tcg Ser	ggg Gly 115	gaa Glu	aca Thr	gac Asp	tta Leu	aag Lys 120	ctt Leu	ttg Leu	gaa Glu	gaa Glu	agc Ser 125	att Ile	gca Ala	aac Asn	38	34
30	ctc Leu	aat Asn 130	agg Arg	tcg Ser	acc Thr	agt Ser	gtt Val 135	cca Pro	gag Glu	aac Asn	ccc Pro	aag Lys 140	agt Ser	tca Ser	gca Ala	tcc Ser	43	32
35	act Thr 145	gct Ala	gtg Val	tct Ser	gct Ala	gcc Ala 150	ccc Pro	aca Thr	gag Glu	aag Lys	gag Glu 155	ttt Phe	cca Pro	aaa Lys	act Thr	cac His 160	48	30
	tct Ser	gat Asp	gta Val	tct Ser	tca Ser 165	gaa Glu	cag Gln	caa Gln	cat His	ttg Leu 170	aag Lys	ggc Gly	cag Gln	act Thr	ggc Gly 175	acc Thr	52	:8
40	aac Asn	ggt Gly	ggc Gly	aat Asn 180	gtg Val	aaa Lys	ttg Leu	tat Tyr	acc Thr 185	aca Thr	gac Asp	caa Gln	agc Ser	acc Thr 190	ttt Phe	gac Asp	57	6
45	att Ile	ttg Leu	cag Gln 195	gat Asp	ttg Leu	gag Glu	ttt Phe	tct Ser 200	tct Ser	ggg Gly	tcc Ser	cca Pro	ggt Gly 205	aaa Lys	gag Glu	acg Thr	62	:4
50	aat Asn	gag Glu 210	agt Ser	cct Pro	tgg Trp	aga Arg	tca Ser 215	gac Asp	ctg Leu	ttg Leu	ata Ile	gat Asp 220	gaa Glu	aac Asn	tgt Cys	ttg Leu	67	2
55	ctt Leu 225	tct Ser	cct Pro	ctg Leu	gcg Ala	gga Gly 230	gaa Glu	gac Asp	gat Asp	tca Ser	ttc Phe 235	ctt Leu	ttg Leu	gaa Glu	gga Gly	aac Asn 240	72	:0
	tcg Ser	aat Asn	gag Glu	gac Asp	tgc Cys 245	aag Lys	cct Pro	ctc Leu	att Ile	tta Leu 250	ccg Pro	gac Asp	act Thr	aaa Lys	ccc Pro 255	aaa Lys	76	8
60	att Ile	aag Lys	gat Asp	aat Asn 260	gga Gly	gat Asp	ctg Leu	gtt Val	ttg Leu 265	tca Ser	agc Ser	ccc Pro	agt Ser	aat Asn 270	gta Val	aca Thr	81	6

	ctg Leu	ccc Pro	caa Gln 275	gtg Val	aaa Lys	aca Thr	gaa Glu	aaa Lys 280	gaa Glu	gat Asp	ttc Phe	atc Ile	gaa Glu 285	ctc Leu	tgc Cys	acc Thr	864
5																	
10	cct Pro	ggg Gly 290	gta Val	att Ile	aag Lys	caa Gln	gag Glu 295	aaa Lys	ctg Leu	ggc Gly	aca Thr	gtt Val 300	tac Tyr	tgt Cys	cag Gln	gca Ala	912
	agc Ser 305	ttt Phe	cct Pro	gga Gly	gca Ala	aat Asn 310	ata Ile	att Ile	ggt Gly	aat Asn	aaa Lys 315	atg Met	tct Ser	gcc Ala	att Ile	tct Ser 320	960
15	gtt Val	cat His	ggt Gly	gtg Val	agt Ser 325	acc Thr	tct Ser	gga Gly	gga Gly	cag Gln 330	atg Met	tac Tyr	cac His	tat Tyr	gac Asp 335	atg Met	1008
20	aat Asn	aca Thr	gca Ala	tcc Ser 340	ctt Leu	tct Ser	caa Gln	cag Gln	cag Gln 345	gat Asp	cag Gln	aag Lys	cct Pro	att Ile 350	ttt Phe	aat Asn	1056
25	gtc Val	att Ile	cca Pro 355	cca Pro	att Ile	ccc Pro	gtt Val	ggt Gly 360	tcc Ser	gaa Glu	aat Asn	tgg Trp	aat Asn 365	agg Arg	tgc Cys	caa Gln	1104
30	gga Gly	tct Ser 370	gga Gly	gat Asp	gac Asp	aac Asn	ttg Leu 375	act Thr	tct Ser	ctg Leu	ggg Gly	act Thr 380	ctg Leu	aac Asn	ttc Phe	cct Pro	1152
	ggt Gly 385	cga Arg	aca Thr	gtt Val	ttt Phe	tct Ser 390	aat Asn	ggc Gly	tat Tyr	tca Ser	agc Ser 395	ccc Pro	agc Ser	atg Met	aga Arg	cca Pro 400	1200
35	gat Asp	gta Val	agc Ser	tct Ser	cct Pro 405	cca Pro	tcc Ser	agc Ser	tcc Ser	tca Ser 410	aca Thr	gca Ala	aca Thr	aca Thr	gga Gly 415	cca Pro	1248
40	cct Pro	ccc Pro	aaa Lys	ctc Leu 420	tgc Cys	ctg Leu	gtg Val	tgc Cys	tct Ser 425	gat Asp	gaa Glu	gct Ala	tca Ser	gga Gly 430	tgt Cys	cat His	1296
45	tat Tyr	gga Gly	gtc Val 435	tta Leu	act Thr	tgt Cys	gga Gly	agc Ser 440	tgt Cys	aaa Lys	gtt Val	ttc Phe	ttc Phe 445	aaa Lys	aga Arg	gca Ala	1344
50	gtg Val	gaa Glu 450	gga Gly	cag Gln	cac His	aat Asn	tac Tyr 455	cta Leu	tgt Cys	gct Ala	gga Gly	agg Arg 460	aat Asn	gat Asp	tgc Cys	atc Ile	1392
	atc Ile 465	gat Asp	aaa Lys	att Ile	cga Arg	aga Arg 470	aaa Lys	aac Asn	tgc Cys	cca Pro	gca Ala 475	tgc Cys	cgc Arg	tat Tyr	cga Arg	aaa Lys 480	1440
55	tgt Cys	ctt Leu	cag Gln	gct Ala	gga Gly 485	atg Met	aac Asn	ctg Leu	gaa Glu	gct Ala 490	cga Arg	aaa Lys	aca Thr	aag Lys	aaa Lys 495	aaa Lys	1488
60	ata Ile	aaa Lys	gga Gly	att Ile 500	cag Gln	cag Gln	gcc Ala	act Thr	aca Thr 505	gga Gly	gtc Val	tca Ser	caa Gln	gaa Glu 510	acc Thr	tct Ser	1536
	gaa	aat	cct	ggt	aac	aaa	aca	ata	gtt	cct	gca	acg	tta	cca	caa	ctc	1584

	Glu	. Asn	Pro 515	Gly	Asn	Lys	Thr	Ile 520	Val	Pro	Ala	Thr	Leu 525		Gln	Leu	
5	acc Thr	cct Pro 530	Thr	ctg Leu	gtg Val	tca Ser	ctg Leu 535	ttg Leu	gag Glu	gtt Val	att Ile	gaa Glu 540	Pro	gaa Glu	gtg Val	tta Leu	1632
10	tat Tyr 545	Ата	gga Gly	tat Tyr	gat Asp	agc Ser 550	tct Ser	gtt Val	cca Pro	gac Asp	tca Ser 555	act Thr	tgg Trp	agg Arg	atc Ile	atg Met 560	1680
15	act Thr	acg Thr	ctc Leu	aac Asn	atg Met 565	tta Leu	gga Gly	Gly	cgg Arg	caa Gln 570	gtg Val	att Ile	gca Ala	gca Ala	gtg Val 575	aaa Lys	1728
20	tgg Trp	gca Ala	aag Lys	gca Ala 580	ata Ile	cca Pro	ggt Gly	ttc Phe	agg Arg 585	aac Asn	tta Leu	cac His	ctg Leu	gat Asp 590	gac Asp	caa Gln	1776
25	atg Met	acc Thr	cta Leu 595	ctg Leu	cag Gln	tac Tyr	tcc Ser	tgg Trp 600	atg Met	ttt Phe	ctt Leu	atg Met	gca Ala 605	ttt Phe	gct Ala	ctg Leu	1824
	ggg ggg	tgg Trp 610	aga Arg	tca Ser	tat Tyr	aga Arg	caa Gln 615	tca Ser	agt Ser	gca Ala	aac Asn	ctg Leu 620	ctg Leu	tgt Cys	ttt Phe	gct Ala	1872
30	cct Pro 625	gat Asp	ctg Leu	att Ile	att Ile	aat Asn 630	gag Glu	cag Gln	aga Arg	atg Met	act Thr 635	cta Leu	ccc Pro	tgc Cys	atg Met	tac Tyr 640	1920
35	gac Asp	caa Gln	tgt Cys	aaa Lys	cac His 645	atg Met	ctg Leu	tat Tyr	gtt Val	tcc Ser 650	tct Ser	gag Glu	tta Leu	cac His	agg Arg 655	ctt Leu	1968
40	cag Gln	gta Val	tct Ser	tat Tyr 660	gaa Glu	gag Glu	tat Tyr	ctc Leu	tgt Cys 665	atg Met	aaa Lys	acc Thr	tta Leu	ctg Leu 670	ctt Leu	ctc Leu	2016
45	tct Ser	tca Ser	gtt Val 675	cct Pro	aag Lys	gac Asp	ggt Gly	ctg Leu 680	aag Lys	agc Ser	caa Gln	gag Glu	cta Leu 685	ttt Phe	gat Asp	gaa Glu	2064
	att Ile	aga Arg 690	atg Met	acc Thr	tac Tyr	atc Ile	aaa Lys 695	gag Glu	cta Leu	gga Gly	aaa Lys	gcc Ala 700	att Ile	gtc Val	aag Lys	agg Arg	2112
50	gaa Glu 705	gga Gly	aac Asn	tcc Ser	agc Ser	cag Gln 710	aac Asn	tgg Trp	cag Gln	cgg Arg	ttt Phe 715	tat Tyr	caa Gln	ctg Leu	aca Thr	aaa Lys 720	2160
55	ctc Leu	ttg Leu	gat Asp	tct Ser	atg Met 725	cat His	gaa Glu	gtg Val	gtt Val	gaa Glu 730	aat Asn	ctc Leu	ctt Leu	aac Asn	tat Tyr 735	tgc Cys	2208
60	ttc Phe	caa Gln	Thr	ttt Phe 740	ttg Leu	gat Asp	aag Lys	acc Thr	atg Met 745	agt Ser	att Ile	gaa Glu	ttc Phe	ccc Pro 750	gag Glu	atg Met	2256
	tta Leu	gct Ala	gaa Glu	atc Ile	atc Ile	acc Thr	aat Asn	cag Gln	ata Ile	cca Pro	aaa Lys	tat Tyr	tca Ser	aat Asn	gga Gly	aat Asn	2304

-5-

			755	<b>,</b>				760	)				765	<b>,</b>			
5	atc Ile	aaa Lys 770	Lys	ctt Leu	ctg Leu	ttt Phe	cat His 775	Gln	aag Lys	tga							233
	<21	0>	2														
10	<21	1>	777														
	<21	2>	PRT														
15	<21	3>	Homo	sap	iens												
	<40	0>	2														
20	Met 1	Asp	Ser	Lys	Glu 5	Ser	Leu	Thr	Pro	Gly 10	Arg	Glu	Glu	Asn	Pro 15	Ser	
25	Ser	Val	Leu	Ala 20	Gln	Glu	Arg	Gly	Asp 25	Val	Met	Asp	Phe	Tyr 30	Lys	Thr	
30	Leu	Arg	Gly 35	Gly	Ala	Thr	Val	Lys 40	Val	Ser	Ala	Ser	Ser 45	Pro	Ser	Leu	
25	Ala	Val 50	Ala	Ser	Gln	Ser	Asp 55	Ser	Lys	Gln	Arg	Arg 60	Leu	Leu	Val	Asp	
35	Phe 65	Pro	Lys	Gly	Ser	Val 70	Ser	Asn	Ala	Gln	Gln 75	Pro	Asp	Leu	Ser	Lys 80	
40	Ala	Val	Ser	Leu	Ser 85	Met	Gly	Leu	Tyr	Met 90	Gly	Glu	Thr	Glu	Thr 95	Lys	
45	Val	Met	Gly	Asn 100	Asp	Leu	Gly	Phe	Pro 105	Gln	Gln	Gly	Gln	Ile 110	Ser	Leu	
50	Ser	Ser	Gly 115	Glu	Thr	Asp	Leu	Lys 120	Leu	Leu	Glu	Glu	Ser 125	Ile	Ala	Asn	
	Leu	Asn 130	Arg	Ser	Thr	Ser	Val 135	Pro	Glu	Asn	Pro	Lys 140	Ser	Ser	Ala	Ser	
55	Thr 145	Ala	Val	Ser	Ala	Ala 150	Pro	Thr	Glu	Lys	Glu 155	Phe	Pro	Lys	Thr	His 160	
60	Ser	Asp	Val	Ser	Ser 165	Glu	Gln	Gln	His	Leu 170	Lys	Gly	Gln	Thr	Gly 175	Thr	

	ASII	GLy	GIY	180	val	гÀ2	Leu	Tyr	185		Asp	Gln	Ser	Thr 190		Ası
5	Ile	Leu	Gln 195	Asp	Leu	Glu	Phe	Ser 200	Ser	Gly	Ser	Pro	Gly 205		Glu	Thi
10	Asn	Glu 210	Ser	Pro	Trp	Arg	Ser 215	Asp	Leu	Leu	Ile	Asp 220	Glu	Asn	Cys	Leı
15	225					230					Phe 235 Pro					240
20	Ile	Lys	Asp	Asn 260	Gly	Asp	Leu	Val	Leu 265	Ser	Ser	Pro	Ser	Asn 270	Val	Thr
25	Leu	Pro	Gln 275	Val	Lys	Thr	Glu	Lys 280	Glu	Asp	Phe	Ile	Glu 285	Leu	Cys	Thr
30	Pro	Gly 290	Val	Ile	Lys	Gln	Glu 295	Lys	Leu	Gly	Thr	Val 300	Tyr	Cys	Gln	Ala
50	Ser 305	Phe	Pro	Gly	Ala	Asn 310	Ile	Ile	Gly	Asn	Lys 315	Met	Ser	Ala	Ile	Ser 320
35	Val	His	Gly	Val	Ser 325	Thr	Ser	Gly	Gly	Gln 330	Met	Tyr	His	Tyr	Asp 335	Met
40	Asn	Thr	Ala	Ser 340	Leu	Ser	Gln	Gln	Gln 345	Asp	Gln	Lys	Pro	Ile 350	Phe	Asn
45	Val	Ile	Pro 355	Pro	Ile	Pro	Val	Gly 360	Ser	Glu	Asn	Trp	Asn 365	Arg	Cys	Gln
50	Gly	Ser 370	Gly	Asp	Asp	Asn	Leu 375	Thr	Ser	Leu	Gly	Thr 380	Leu	Asn	Phe	Pro
50	Gly 385	Arg	Thr	Val	Phe	Ser 390	Asn	Gly	Tyr	Ser	Ser 395	Pro	Ser	Met	Arg	Pro 400
55	Asp	Val	Ser	Ser	Pro 405	Pro	Ser	Ser	Ser	Ser 410	Thr	Ala	Thr	Thr	Gly 415	Pro
50	Pro	Pro	Lys	Leu 420	Cys	Leu	Val	Cys	Ser 425	Asp	Glu	Ala	Ser	Gly 430	Cys	His
	Tyr	Gly	Val	Leu	Thr	Cys	Gly	Ser	Cys	Lys	Val	Phe	Phe	Lys	Arg	Ala

			435					440					445			
5	Val	Glu 450	Gly	Gln	His	Asn	Туг 455	Leu	Cys	Ala	Gly	Arg 460	Asn	Asp	Cys	Ile
10	Ile 465	Asp	Lys	Ile	Arg	Arg 470	Lys	Asn	Cys	Pro	Ala 475	Cys	Arg	Tyr	Arg	Lys 480
	Суѕ	Leu	Gln	Ala	Gly 485	Met	Asn	Leu	Glu	Ala 490	Arg	Lys	Thr	Lys	Lys 495	Lys
15	Ile	Lys	Gly	Ile 500	Gln	Gln	Ala	Thr	Thr 505	Gly	Val	Ser	Gln	Glu 510	Thr	Ser
20	Glu	Asn	Pro 515	Gly	Asn	Lys	Thr	Ile 520	Val	Pro	Ala	Thr	Leu 525	Pro	Gln	Leu
	Thr	Pro 530	Thr	Leu	Val	Ser	Leu 535	Leu	Glu	Val	Ile	Glu 540	Pro	Glu	Val	Leu
25	Tyr 545	Ala	Gly	Tyr	Asp	Ser 550	Ser	Val	Pro	Asp	Ser 555	Thr	Trp	Arg	Ile	Met 560
30	Thr	Thr	Leu	Asn	Met 565	Leu	Gly	Gly	Arg	Gln 570	Val	Ile	Ala	Ala	Val 575	Lys
35	Trp	Ala	Lys	Ala 580	Ile	Pro	Gly	Phe	Arg 585	Asn	Leu	His	Leu	Asp 590	Asp	Gln
40	Met	Thr	Leu 595	Leu	Gln	Туг	Ser	Trp 600	Met	Phe	Leu	Met	Ala 605	Phe	Ala	Leu
	Gly	Trp 610	Arg	Ser	Tyr	Arg	Gln 615	Ser	Ser	Ala	Asn	Leu 620	Leu	Cys	Phe	Ala
45	Pro 625	Asp	Leu	Ile	Ile	Asn 630	Glu	Gln	Arg	Met	Thr 635	Leu	Pro	Cys	Met	Tyr 640
50	Asp	Gln	Cys	Lys	His 645	Met	Leu	Tyr	Val	Ser 650	Ser	Glu	Leu	His	Arg 655	Leu
55	Gln	Val	Ser	Туr 660	Glu	Glu	Tyr	Leu	Cys 665	Met	Lys	Thr	Leu	Leu 670	Leu	Leu
60	Ser	Ser	Val 675	Pro	Lys	Asp	Gly	Leu 680	Lys	Ser	Gln	Glu	Leu 685	Phe	Asp	Glu
	Ile	Arg 690	Met	Thr	Tyr	Ile	Lys 695		Leu	Gly	Lys	Ala 700	Ile	Val	Lys	Arg

5	705	GIŸ	ASN	ser	ser	710	Asn	Trp	GIn	Arg	715	Tyr	Gln	Leu	Thr	Lys 720	
	Leu	Leu	Asp	Ser	Met 725	His	Glu	Val	Val	Glu 730	Asn	Leu	Leu	Asn	Туг 735	Cys	
10	Phe	Gln	Thr	Phe 740	Leu	Asp	Lys	Thr	Met 745	Ser	Ile	Glu	Phe	Pro 750	Glu	Met	
15	Leu	Ala	Glu 755	Ile	Ile	Thr	Asn	Gln 760	Ile	Pro	Lys	Tyr	Ser 765	Asn	Gly	Asn	
20	Ile <210	770		Leu	Leu	Phe	His 775	Gln	Lys								
) E	<21		2334														
25	<212		DNA 														
	<213	3> :	Homo	sapi	lens												
30	<220	)>															
	<22	L> (	CDS														
35	<222	2>	(1)	(233	34)												
	<223	3>															
40	<400		-														
45			tcc Ser														48
			ctt Leu														96
50			gga Gly 35														144
55			gct Ala														192
60			aaa Lys														240
	gca Ala	gtt Val	tca Ser	ctc Leu	tca Ser	atg Met	gga Gly	ctg Leu	tat Tyr	atg Met	gga Gly	gag Glu	aca Thr	gaa Glu	aca Thr	aaa Lys	288

gtg atg gga aat gac ctg gga ttc cca cag cag ggc caa atc agc ctt Val Met Gly Asn Asp Leu Gly Phe Pro Gln Gln Gly Gln Ile Ser Leu tcc tcg ggg gaa aca gac tta aag ctt ttg gaa gaa agc att gca aac Ser Ser Gly Glu Thr Asp Leu Lys Leu Leu Glu Glu Ser Ile Ala Asn ctc aat agg tcg acc agt gtt cca gag aac ccc aag agt tca gca tcc Leu Asn Arg Ser Thr Ser Val Pro Glu Asn Pro Lys Ser Ser Ala Ser act gct gtg tct gct gcc ccc aca gag aag gag ttt cca aaa act cac Thr Ala Val Ser Ala Ala Pro Thr Glu Lys Glu Phe Pro Lys Thr His tct gat gta tct tca gaa cag caa cat ttg aag ggc cag act ggc acc Ser Asp Val Ser Ser Glu Gln Gln His Leu Lys Gly Gln Thr Gly Thr aac ggt ggc aat gtg aaa ttg tat acc aca gac caa agc acc ttt gac Asn Gly Gly Asn Val Lys Leu Tyr Thr Thr Asp Gln Ser Thr Phe Asp att ttg cag gat ttg gag ttt tct tct ggg tcc cca ggt aaa gag acg Ile Leu Gln Asp Leu Glu Phe Ser Ser Gly Ser Pro Gly Lys Glu Thr aat gag agt cct tgg aga tca gac ctg ttg ata gat gaa aac tgt ttg Asn Glu Ser Pro Trp Arg Ser Asp Leu Leu Ile Asp Glu Asn Cys Leu ctt tct cct ctg gcg gga gaa gac gat tca ttc ctt ttg gaa gga aac Leu Ser Pro Leu Ala Gly Glu Asp Asp Ser Phe Leu Leu Glu Gly Asn tcg aat gag gac tgc aag cct ctc att tta ccg gac act aaa ccc aaa Ser Asn Glu Asp Cys Lys Pro Leu Ile Leu Pro Asp Thr Lys Pro Lys att aag gat aat gga gat ctg gtt ttg tca agc ccc agt aat gta aca Ile Lys Asp Asn Gly Asp Leu Val Leu Ser Ser Pro Ser Asn Val Thr ctg ccc caa gtg aaa aca gaa aaa gaa gat ttc atc gaa ctc tgc acc Leu Pro Gln Val Lys Thr Glu Lys Glu Asp Phe Ile Glu Leu Cys Thr cct ggg gta att aag caa gag aaa ctg ggc aca gtt tac tgt cag gca Pro Gly Val Ile Lys Gln Glu Lys Leu Gly Thr Val Tyr Cys Gln Ala agc ttt cct gga gca aat ata att ggt aat aaa atg tct gcc att tct Ser Phe Pro Gly Ala Asn Ile Ile Gly Asn Lys Met Ser Ala Ile Ser gtt cat ggt gtg agt acc tct gga gga cag atg tac cac tat gac atg Val His Gly Val Ser Thr Ser Gly Gly Gln Met Tyr His Tyr Asp Met 

	aat Asn	aca Thr	gca Ala	tcc Ser 340	ctt Leu	tct Ser	caa Gln	cag Gln	cag Gln 345	gat Asp	cag Gln	aag Lys	cct Pro	att Ile 350	ttt Phe	aat Asn	1056
5	gtc Val	att Ile	cca Pro 355	cca Pro	att Ile	ccc Pro	gtt Val	ggt Gly 360	tcc Ser	gaa Glu	aat Asn	tgg Trp	aat Asn 365	agg Arg	tgc Cys	caa Gln	1104
10	gga Gly	tct Ser 370	gga Gly	gat Asp	gac Asp	aac Asn	ttg Leu 375	act Thr	tct Ser	ctg Leu	ggg Gly	act Thr 380	ctg Leu	aac Asn	ttc Phe	cct Pro	1152
15	ggt Gly 385	cga Arg	aca Thr	gtt Val	ttt Phe	tct Ser 390	aat Asn	ggc Gly	tat Tyr	tca Ser	agc Ser 395	ccc Pro	agc Ser	atg Met	aga Arg	cca Pro 400	1200
20	gat Asp	gta Val	agc Ser	tct Ser	cct Pro 405	cca Pro	tcc Ser	agc Ser	tcc Ser	tca Ser 410	aca Thr	gca Ala	aca Thr	aca Thr	gga Gly 415	cca Pro	1248
	cct Pro	ccc Pro	aaa Lys	ctc Leu 420	tgc Cys	ctg Leu	gtg Val	tgc Cys	tct Ser 425	gat Asp	gaa Glu	gct Ala	tca Ser	gga Gly 430	tgt Cys	cat His	1296
25																	
30	tat Tyr	gga Gly	gtc Val 435	tta Leu	act Thr	tgt Cys	gga Gly	agc Ser 440	tgt Cys	aaa Lys	gtt Val	ttc Phe	ttc Phe 445	aaa Lys	aga Arg	gca Ala	1344
00	gtg Val	gaa Glu 450	gga Gly	cag Gln	cac His	aat Asn	tac Tyr 455	cta Leu	tgt Cys	gct Ala	gga Gly	agg Arg 460	aat Asn	gat Asp	tgc Cys	atc Ile	1392
35	atc Ile 465	gat Asp	aaa Lys	att Ile	cga Arg	aga Arg 470	aaa Lys	aac Asn	tgc Cys	cca Pro	gca Ala 475	tgc Cys	cgc Arg	tat Tyr	cga Arg	aaa Lys 480	1440
40	tgt Cys	ctt Leu	cag Gln	gct Ala	gga Gly 485	atg Met	aac Asn	ctg Leu	gaa Glu	gct Ala 490	cga Arg	aaa Lys	aca Thr	aag Lys	aaa Lys 495	aaa Lys	1488
45	ata Ile	aaa Lys	gga Gly	att Ile 500	cag Gln	cag Gln	gcc Ala	act Thr	aca Thr 505	gga Gly	gtc Val	tca Ser	caa Gln	gaa Glu 510	acc Thr	tct Ser	1536
50	gaa Glu	aat Asn	cct Pro 515	ggt Gly	aac Asn	aaa Lys	aca Thr	ata Ile 520	gtt Val	cct Pro	gca Ala	acg Thr	tta Leu 525	cca Pro	caa Gln	ctc Leu	1584
30	acc Thr	cct Pro 530	acc Thr	ctg Leu	gtg Val	tca Ser	ctg Leu 535	ttg Leu	gag Glu	gtt Val	att Ile	gaa Glu 540	cct Pro	gaa Glu	gtg Val	tta Leu	1632
55	tat Tyr 545	gca Ala	gga Gly	tat Tyr	gat Asp	agc Ser 550	tct Ser	gtt Val	cca Pro	gac Asp	tca Ser 555	act Thr	tgg Trp	agg Arg	atc Ile	atg Met 560	1680
60	act Thr	acg Thr	ctc Leu	aac Asn	atg Met 565	tta Leu	gga Gly	ggg Gly	cgg Arg	caa Gln 570	gtg Val	att Ile	gca Ala	gca Ala	gtg Val 575	aaa Lys	1728
	tgg	gca	aag	gca	ata	cca	ggt	ttc	agg	aac	tta	cac	ctg	gat	gac	caa	1776

	Trp	Ala	Lys	Ala 580	Ile	Pro	Gly	Phe	Arg 585	Asn	Leu	His	Leu	Asp 590	Asp	Gln	
5	atg Met	acc Thr	cta Leu 595	ctg Leu	cag Gln	tac Tyr	tcc Ser	tgg Trp 600	atg Met	tcc Ser	ctt Leu	atg Met	gca Ala 605	ttt Phe	gct Ala	ctg Leu	1824
10	ggg	tgg Trp 610	aga Arg	tca Ser	tat Tyr	aga Arg	caa Gln 615	tca Ser	agt Ser	gca Ala	aac Asn	ctg Leu 620	ctg Leu	tgt Cys	ttt Phe	gct Ala	1872
15	cct Pro 625	gat Asp	ctg Leu	att Ile	att Ile	aat Asn 630	gag Glu	cag Gln	aga Arg	atg Met	act Thr 635	cta Leu	ccc Pro	tgc Cys	atg Met	tac Tyr 640	1920
	gac Asp	caa Gln	tgt Cys	aaa Lys	cac His 645	atg Met	ctg Leu	tat Tyr	gtt Val	tcc Ser 650	tct Ser	gag Glu	tta Leu	cac His	agg Arg 655	ctt Leu	1968
20	cag Gln	gta Val	tct Ser	tat Tyr 660	gaa Glu	gag Glu	tat Tyr	ctc Leu	tgt Cys 665	atg Met	aaa Lys	acc Thr	tta Leu	ctg Leu 670	ctt Leu	ctc Leu	2016
25	tct Ser	tca Ser	gtt Val 675	cct Pro	aag Lys	gac Asp	ggt Gly	ctg Leu 680	aag Lys	agc Ser	caa Gln	gag Glu	cta Leu 685	ttt Phe	gat Asp	gaa Glu	2064
30	att Ile	aga Arg 690	atg Met	acc Thr	tac Tyr	atc Ile	aaa Lys 695	gag Glu	cta Leu	gga Gly	aaa Lys	gcc Ala 700	att Ile	gtc Val	aag Lys	agg Arg	2112
35	gaa Glu 705	gga Gly	aac Asn	tcc Ser	agc Ser	cag Gln 710	aac Asn	tgg Trp	cag Gln	cgg Arg	ttt Phe 715	tat Tyr	caa Gln	ctg Leu	aca Thr	aaa Lys 720	2160
40	ctc Leu	ttg Leu	gat Asp	tct Ser	atg Met 725	cat His	gaa Glu	gtg Val	gtt Val	gaa Glu 730	aat Asn	ctc Leu	ctt Leu	aac Asn	tat Tyr 735	tgc Cys	2208
45	ttc Phe	caa Gln	aca Thr	ttt Phe 740	ttg Leu	gat Asp	aag Lys	acc Thr	atg Met 745	agt Ser	att Ile	gaa Glu	ttc Phe	ccc Pro 750	gag Glu	atg Met	2256
0	tta Leu	gct Ala	gaa Glu 755	atc Ile	atc Ile	acc Thr	aat Asn	cag Gln 760	ata Ile	cca Pro	aaa Lys	tat Tyr	tca Ser 765	aat Asn	gga Gly	aat Asn	2304
50	atc Ile	aaa Lys 770	aaa Lys	ctt Leu	ctg Leu	ttt Phe	cat His 775	caa Gln	aag Lys	tga							2334
55	<210 <211		1 177														
	<212		PRT														
60	<213		lomo	sapi	ens												
		•		r-	2-10												

	<400	)> 4	1													
5	Met 1	Asp	Ser	Lys	Glu 5	Ser	Leu	Thr	Pro	Gly 10	Arg	Glu	Glu	Asn	Pro 15	Ser
10	Ser	Val	Leu	Ala 20	Gln	Glu	Arg	Gly	Asp 25	Val	Met	Asp	Phe	Tyr 30	Lys	Thr
15	Leu	Arg	Gly 35	Gly	Ala	Thr	Val	Lys 40	Val	Ser	Ala	Ser	Ser 45	Pro	Ser	Leu
	Ala	Val 50	Ala	Ser	Gln	Ser	Asp 55	Ser	Lys	Gln	Arg	Arg 60	Leu	Leu	Val	Asp
20	Phe 65	Pro	Lys	Gly	Ser	Val 70	Ser	Asn	Ala	Gln	Gln 75	Pro	Asp	Leu	Ser	Lys 80
25	Ala	Val	Ser	Leu	Ser 85	Met	Gly	Leu	Tyr	Met 90	Gly	Glu	Thr	Glu	Thr 95	Lys
30	Val	Met	Gly	Asn 100	Asp	Leu	Gly	Phe	Pro 105	Gln	Gln	Gly	Gln	Ile 110	Ser	Leu
35	Ser	Ser	Gly 115	Glu	Thr	Asp	Leu	Lys 120	Leu	Leu	Glu	Glu	Ser 125	Ile	Ala	Asn
40	Leu	Asn 130	Arg	Ser	Thr	Ser	Val 135	Pro	Glu	Asn	Pro	Lys 140	Ser	Ser	Ala	Ser
	Thr 145	Ala	Val	Ser	Ala	Ala 150	Pro	Thr	Glu	Lys	Glu 155	Phe	Pro	Lys	Thr	His 160
45	Ser	Asp	Val	Ser	Ser 165	Glu	Gln	Gln	His	Leu 170	Lys	Gly	Gln	Thr	Gly 175	Thr
50	Asn	Gly	Gly	Asn 180	Val	Lys	Leu	Tyr	Thr 185	Thr	Asp	Gln	Ser	Thr 190	Phe	Asp
55	Ile	Leu	Gln 195	Asp	Leu	Glu	Phe	Ser 200	Ser	Gly	Ser	Pro	Gly 205	Lys	Glu	Thr
60	Asn	Glu 210	Ser	Pro	Trp	Arg	Ser 215	Asp	Leu	Leu	Ile	Asp 220	Glu	Asn	Cys	Leu

Leu Ser Pro Leu Ala Gly Glu Asp Asp Ser Phe Leu Leu Glu Gly Asn 225 235 240

5	Ser	Asn	Glu	Asp	Cys 245	Lys	Pro	Leu	Ile	Leu 250	Pro	Asp	Thr	Lys	Pro 255	Lys
1.0	Ile	Lys	Asp	Asn 260	Gly	Asp	Leu	Val	Leu 265	Ser	Ser	Pro	Ser	Asn 270	Val	Thr
10	Leu	Pro	Gln 275	Val	Lys	Thr	Glu	Lys 280	Glu	Asp	Phe	Ile	Glu 285	Leu	Cys	Thr
15	Pro	Gly 290	Val	Ile	Lys	Gln	Glu 295	Lys	Leu	Gly	Thr	Val 300	Tyr	Cys	Gln	Ala
20	Ser 305	Phe	Pro	Gly	Ala	Asn 310	Ile	Ile	Gly	Asn	Lys 315	Met	Ser	Ala	Ile	Ser 320
25	Val	His	Gly	Val	Ser 325	Thr	Ser	Gly	Gly	Gln 330	Met	Tyr	His	Tyr	Asp 335	Met
	Asn	Thr	Ala	Ser 340	Leu	Ser	Gln	Gln	Gln 345	Asp	Gln	Lys	Pro	11e 350	Phe	Asn
30	Val	Ile	Pro 355	Pro	Ile	Pro	Val	Gly 360	Ser	Glu	Asn	Trp	Asn 365	Arg	Cys	Gln
35		370			Asp		375					380				
	Gly 385	Arg	Thr	Val	Phe	Ser 390	Asn	Gly	Tyr	Ser	Ser 395	Pro	Ser	Met	Arg	Pro 400
40	Asp	Val	Ser	Ser	Pro 405	Pro	Ser	Ser	Ser	Ser 410	Thr	Ala	Thr	Thr	Gly 415	Pro
45	Pro	Pro	Lys	Leu 420	Cys	Leu	Val	Cys	Ser 425	Asp	Glu	Ala	Ser	Gly 430	Cys	His
50	Tyr	Gly	Val 435	Leu	Thr	Cys	Gly	Ser 440	Cys	Lys	Val	Phe	Phe 445	Lys	Arg	Ala
55	Val	Glu 450	Gly	Gln	His	Asn	Tyr 455	Leu	Cys	Ala	Gly	Arg 460	Asn	Asp	Cys	Ile
	Ile 465	Asp	Lys	Ile	Arg	Arg 470	Lys	Asn	Cys	Pro	Ala 475	Cys	Arg	Tyr	Arg	Lys 480
60	Cys	Leu	Gln	Ala	Gly 485	Met	Asn	Leu	Glu	Ala 490	Arg	Lys	Thr	Lys	Lys 495	Lys

_	Ile	Lys	Gly	Ile 500	Gln	Gln	Ala	Thr	Thr 505	Gly	Val	Ser	Gln	Glu 510	Thr	Ser
5	Glu	Asn	Pro 515	Gly	Asn	Lys	Thr	Ile 520	Val	Pro	Ala	Thr	Leu 525	Pro	Gln	Leu
10	Thr	Pro 530	Thr	Leu	Val	Ser	Leu 535	Leu	Glu	Val	Ile	Glu 540	Pro	Glu	Val	Leu
15	Туг 545	Ala	Gly	Tyr	Asp	Ser 550	Ser	Val	Pro	Asp	Ser 555	Thr	Trp	Arg	Ile	Met 560
20	Thr	Thr	Leu	Asn	Met 565	Leu	Gly	Gly	Arg	Gln 570	Val	Ile	Ala	Ala	Val 575	Lys
25	Trp	Ala	Lys	Ala 580	Ile	Pro	Gly	Phe	Arg 585	Asn	Leu	His	Leu	Asp 590	Asp	Gln
20	Met	Thr	Leu 595	Leu	Gln	Tyr	Ser	Trp 600	Met	Ser	Leu	Met	Ala 605	Phe	Ala	Leu
30	Gly	Trp 610	Arg	Ser	Tyr	Arg	Gln 615	Ser	Ser	Ala	Asn	Leu 620	Leu	Cys	Phe	Ala
35	Pro 625	Asp	Leu	Ile	Ile	Asn 630	Glu	Gln	Arg	Met	Thr 635	Leu	Pro	Cys	Met	Туг 640
	Asp	Gln	Cys	Lys	His 645	Met	Leu	Tyr	Val	Ser 650	Ser	Glu	Leu	His	Arg 655	Leu
40	Gln	Val	Ser	Tyr 660	Glu	Glu	Туг	Leu	Cys 665	Met	Lys	Thr	Leu	Leu 670	Leu	Leu
45	Ser	Ser	Val 675	Pro	Lys	Asp	Gly	Leu 680	Lys	Ser	Gln	Glu	Leu 685	Phe	Asp	Glu
50	Ile	Arg 690	Met	Thr	Tyr	Ile	Lys 695	Glu	Leu	Gly	Lys	Ala 700	Ile	Val	Lys	Arg
<b>-</b> -	Glu 705	Gly	Asn	Ser	Ser	Gln 710	Asn	Trp	Gln	Arg	Phe 715	Tyr	Gln	Leu	Thr	Lys 720
55	Leu	Leu	Asp	Ser	Met 725	His	Glu	Val	Val	Glu 730	Asn	Leu	Leu	Asn	Tyr 735	Суз
60	Phe	Gln	Thr	Phe	Leu	Asp	Lys	Thr	Met 745	Ser	Ile	Glu	Phe	Pro 750	Glu	Met

	Leu Ala Glu 755	Ile Ile Thr	Asn Gln Ile 760	Pro Lys Tyr Ser 765	Asn Gly Asn
5	Ile Lys Lys 770	Leu Leu Phe	His Gln Lys 775		
10	<210> 5 <211> 774				
15	<212> DNA <213> Homo	sapiens			
20	<220> <221> CDS				
25	<222> (1) <223>	. (771)			
30			Gln Leu Thr	cct acc ctg gtg Pro Thr Leu Val 10	
35				gca gga tat gat Ala Gly Tyr Asp	
40				acg ctc aac atg Thr Leu Asn Met 45	
45		_		gca aag gca ata Ala Lys Ala Ile 60	<del>-</del> -
50				acc cta ctg cag Thr Leu Leu Gln 75	
				tgg aga tca tat Trp Arg Ser Tyr 90	
55			-	gat ctg att att Asp Leu Ile Ile	
60		_		caa tgt aaa cac Gln Cys Lys His 125	= = =
	gtt tcc tct	gag tta cac	agg ctt cag	gta tct tat gaa	gag tat ctc 432

	Val Ser 130	Ser	Glu	Leu	His	Arg 135	Leu	Gln	Val	Ser	Tyr 140	Glu	Glu	Tyr	Leu	
5	tgt atg Cys Met 145	aaa Lys	acc Thr	tta Leu	ctg Leu 150	ctt Leu	ctc Leu	tct Ser	tca Ser	gtt Val 155	cct Pro	aag Lys	gac Asp	ggt Gly	ctg Leu 160	480
10	aag agc Lys Ser	caa Gln	gag Glu	cta Leu 165	ttt Phe	gat Asp	gaa Glu	att Ile	aga Arg 170	atg Met	acc Thr	tac Tyr	atc Ile	aaa Lys 175	gag Glu	528
15	cta gga Leu Gly	aaa Lys	gcc Ala 180	att Ile	gtc Val	aag Lys	agg Arg	gaa Glu 185	gga Gly	aac Asn	tcc Ser	agc Ser	cag Gln 190	aac Asn	tgg Trp	576
.0	cag cgg Gln Arg	ttt Phe 195	tat Tyr	caa Gln	ctg Leu	aca Thr	aaa Lys 200	ctc Leu	ttg Leu	gat Asp	tct Ser	atg Met 205	cat His	gaa Glu	gtg Val	624
20	gtt gaa Val Glu 210	aat Asn	ctc Leu	ctt Leu	aac Asn	tat Tyr 215	tgc Cys	ttc Phe	caa Gln	aca Thr	ttt Phe 220	ttg Leu	gat Asp	aag Lys	acc Thr	672
25	atg agt Met Ser 225	att Ile	gaa Glu	ttc Phe	ccc Pro 230	gag Glu	atg Met	tta Leu	gct Ala	gaa Glu 235	atc Ile	atc Ile	acc Thr	aat Asn	cag Gln 240	720
30	ata cca Ile Pro															768
	aag tga Lys															774
35																
	<210>	5														
40		257														
		PRT														
45		iomo	sapi	Lens												
	Val Pro 1		Thr	Leu 5	Pro	Gln	Leu	Thr	Pro 10	Thr	Leu	Val	Ser	Leu 15	Leu	
50	Glu Val	Ile	Glu 20	Pro	Glu	Val	Leu	Tyr 25	Ala	Gly	Tyr	Asp	Ser 30	Ser	Val	
55	Pro Asp	Ser 35	Thr	Trp	Arg	Ile	Met 40	Thr	Thr	Leu	Asn	Met 45	Leu	Gly	Gly	
60	Arg Gln 50	Val	Ile	Ala	Ala	Val 55	Lys	Trp	Ala	Lys	Ala 60	Ile	Pro	Gly	Phe	
	50															

-17-

	65					70					75					80
5	Met	Phe	Leu	Met	Ala 85	Phe	Ala	Leu	Gly	Trp 90	Arg	Ser	Tyr	Arg	Gln 95	Ser
10	Ser	Ala	Asn	Leu 100	Leu	Cys	Phe	Ala	Pro 105	Asp	Leu	Ile	Ile	Asn 110	Glu	Gln
	Arg	Met	Thr 115	Leu	Pro	Cys	Met	Tyr 120	Asp	Gln	Cys	Lys	His 125	Met	Leu	Tyr
15	Val	Ser 130	Ser	Glu	Leu	His	Arg 135	Leu	Gln	Val	Ser	Tyr 140	Glu	Glu	Tyr	Leu
20	Cys 145	Met	Lys	Thr	Leu	Leu 150	Leu	Leu	Ser	Ser	Val 155	Pro	Lys	Asp	Gly	Leu 160
25	Lys	Ser	Gln	Glu	Leu 165	Phe	Asp	Glu	Ile	Arg 170	Met	Thr	Tyr	Ile	Lys 175	Glu
30	Leu	Gly	Lys	Ala 180	Ile	Val	Lys	Arg	Glu 185	Gly	Asn	Ser	Ser	Gln 190	Asn	Trp
35	Gln	Arg	Phe 195	Tyr	Gln	Leu	Thr	Lys 200	Leu	Leu	Asp	Ser	Met 205	His	Glu	Val
00	Val	Glu 210	Asn	Leu	Leu	Asn	Tyr 215	Cys	Phe	Gln	Thr	Phe 220	Leu	Asp	Lys	Thr
40	Met 225	Ser	Ile	Glu	Phe	Pro 230	Glu	Met	Leu	Ala	Glu 235	Ile	Ile	Thr	Asn	Gln 240
45	Ile	Pro	Lys	Tyr	Ser 245	Asn	Gly	Asn	Ile	Lys 250	Lys	Leu	Leu	Phe	His 255	Gln
50	Lys															
	<210	)> .	7													
55	<21	1>	774													
00	<212	2>	DNA													
00	<213	3> 1	Homo	sap:	iens											
60																
	<220	)>														

<221> CDS <222> (1)..(771)5 <223> <400> 7 10 gtt cct gca acg tta cca caa ctc acc cct acc ctg gtg tca ctg ttg 48 Val Pro Ala Thr Leu Pro Gln Leu Thr Pro Thr Leu Val Ser Leu Leu gag gtt att gaa cct gaa gtg tta tat gca gga tat gat agc tct gtt 96 15 Glu Val Ile Glu Pro Glu Val Leu Tyr Ala Gly Tyr Asp Ser Ser Val cca gac tca act tgg agg atc atg act acg ctc aac atg tta gga ggg 144 Pro Asp Ser Thr Trp Arg Ile Met Thr Thr Leu Asn Met Leu Gly Gly 20 cgg caa gtg att gca gca gtg aaa tgg gca aag gca ata cca ggt ttc 192 Arg Gln Val Ile Ala Ala Val Lys Trp Ala Lys Ala Ile Pro Gly Phe 25 agg aac tta cac ctg gat gac caa atg acc cta ctg cag tac tcc tgg 240 Arg Asn Leu His Leu Asp Asp Gln Met Thr Leu Leu Gln Tyr Ser Trp 30 atg tcc ctt atg gca ttt gct ctg ggg tgg aga tca tat aga caa tca 288 Met Ser Leu Met Ala Phe Ala Leu Gly Trp Arg Ser Tyr Arg Gln Ser 90 agt gca aac ctg ctg tgt ttt gct cct gat ctg att att aat gag cag 336 35 Ser Ala Asn Leu Leu Cys Phe Ala Pro Asp Leu Ile Ile Asn Glu Gln 100 105 aga atg act cta ccc tgc atg tac gac caa tgt aaa cac atg ctg tat 384 Arg Met Thr Leu Pro Cys Met Tyr Asp Gln Cys Lys His Met Leu Tyr 40 gtt tcc tct gag tta cac agg ctt cag gta tct tat gaa gag tat ctc 432 Val Ser Ser Glu Leu His Arg Leu Gln Val Ser Tyr Glu Glu Tyr Leu 135 45 480 tgt atg aaa acc tta ctg ctt ctc tct tca gtt cct aag gac ggt ctg Cys Met Lys Thr Leu Leu Leu Ser Ser Val Pro Lys Asp Gly Leu 155 50 aag agc caa gag cta ttt gat gaa att aga atg acc tac atc aaa gag 528 Lys Ser Gln Glu Leu Phe Asp Glu Ile Arg Met Thr Tyr Ile Lys Glu 55 cta gga aaa gcc att gtc aag agg gaa gga aac tcc agc cag aac tgg 576 Leu Gly Lys Ala Ile Val Lys Arg Glu Gly Asn Ser Ser Gln Asn Trp 180 185 60 cag cgg ttt tat caa ctg aca aaa ctc ttq gat tct atg cat gaa gtg 624

Gln Arg Phe Tyr Gln Leu Thr Lys Leu Leu Asp Ser Met His Glu Val 195 200 205

	gtt g Val 0	gaa Glu 210	aat Asn	ctc Leu	ctt Leu	aac Asn	tat Tyr 215	tgc Cys	ttc Phe	caa Gln	aca Thr	ttt Phe 220	ttg Leu	gat Asp	aag Lys	acc Thr	672
5	atg a Met S 225	agt Ser	att Ile	gaa Glu	ttc Phe	ccc Pro 230	gag Glu	atg Met	tta Leu	gct Ala	gaa Glu 235	atc Ile	atc Ile	acc Thr	aat Asn	cag Gln 240	720
10	ata d Ile E																768
15	aag t Lys	iga															774
	<210>	> 8															
20	<211>	> 2	57														
	<212>	> P	RT														
25	<213>	> Н	omo	sapi	lens												
	<400> 8																
30	Val E 1	Pro	Ala	Thr	Leu 5	Pro	Gln	Leu	Thr	Pro 10	Thr	Leu	Val	Ser	Leu 15	Leu	
35	Glu V	/al	Ile	Glu 20	Pro	Glu	Val	Leu	Tyr 25	Ala	Gly	Tyr	Asp	Ser 30	Ser	Val	
40	Pro A		Ser 35	Thr	Trp	Arg	Ile	Met 40	Thr	Thr	Leu	Asn	Met 45	Leu	Gly	Gly	
	Arg (	Gln 50	Val	Ile	Ala	Ala	Val 55	Lys	Trp	Ala	Lys	Ala 60	Ile	Pro	Gly	Phe	
45																	
	Arg A	Asn	Leu	His	Leu	Asp 70	Asp	Gln	Met	Thr	Leu 75	Leu	Gln	Tyr	Ser	Trp 80	
50	Met S	Ser	Leu	Met	Ala 85	Phe	Ala	Leu	Gly	Trp 90	Arg	Ser	Туг	Arg	Gln 95	Ser	
55	Ser A	Ala	Asn	Leu 100	Leu	Cys	Phe	Ala	Pro 105	Asp	Leu	Ile	Ile	Asn 110	Glu	Gln	
60	Arg N	Met	Thr 115	Leu	Pro	Cys	Met	Tyr 120	Asp	Gln	Cys	Lys	His 125	Met	Leu	Tyr	
	Val S	Ser	Ser	Glu	Leu	His	Arg	Leu	Gln	Val	Ser	Tyr	Glu	Glu	Tyr	Leu	

-20-

		130					135					140				
5	Cys 145	Met	Lys	Thr	Leu	Leu 150	Leu	Leu	Ser	Ser	Val 155	Pro	Lys	Asp	Gly	Leu 160
10	Lys	Ser	Gln	Glu	Leu 165	Phe	Asp	Glu	Ile	Arg 170	Met	Thr	Tyr	Ile	Lys 175	Glu
4.5	Leu	Gly	Lys	Ala 180	Ile	Val	Lys	Arg	Glu 185	Gly	Asn	Ser	Ser	Gln 190	Asn	Trp
15	Gln	Arg	Phe 195	Tyr	Gln	Leu	Thr	Lys 200	Leu	Leu	Asp	Ser	Met 205	His	Glu	Val
20	Val	Glu 210	Asn	Leu	Leu	Asn	Tyr 215	Cys	Phe	Gln	Thr	Phe 220	Leu	Asp	Lys	Thr
25	Met 225	Ser	Ile	Glu	Phe	Pro 230	Glu	Met	Leu	Ala	Glu 235	Ile	Ile	Thr	Asn	Gln 240
30	Ile	Pro	Lys	Tyr	Ser 245	Asn	Gly	Asn	Ile	Lys 250	Lys	Leu	Leu	Phe	His 255	Gln
	Lys															
35	<210 <21		9 14													
40	<21:	2> :	PRT Homo	san	iens											
45	<40		9	oup.												
50	Lys 1	Glu	Asn	Ala	Leu 5	Leu	Arg	Tyr	Leu	Leu 10	Asp	Lys	Asp	Asp		
	<21	0>	10													
55	<21	1>	5													
00	<21	2>	PRT													
60	<21	3>	Homo	sap	iens											
	<22	0>														

Leu Leu Arg Tyr Leu Leu 1 5

30